

CLAIMS

We Claim:

1 1. A proprietary information utility comprising:
2 an interface that provides outside entities connection to the
3 proprietary information utility;
4 a repository that contains proprietary information, wherein the
5 repository is compartmentalized by user identity and entitlement, so that a
6 first category of proprietary information is within private domains available
7 to only a single user and a second category of proprietary information is
8 within domains to which multiple users may be granted use in response to
9 acquiring a license to use particular proprietary information within the
10 second category of proprietary information;
11 application services;
12 a security system, that limits access of each user connecting to the
13 proprietary information utility to proprietary information to which each
14 user is entitled, the proprietary information to which each user is entitled
15 being accessed through use of the application services; and,
16 a billing system for tracking usage by users of the proprietary
17 information utility for billing purposes.

1 2. A proprietary information utility as in claim 1 wherein the second
2 category of proprietary information includes decision support software.

1 3. A proprietary information utility as in claim 1 wherein the
2 application services include services to perform at least one of the following
3 activities related to patents:

4 help identify patentable ideas;
5 create patent disclosures;
6 manage pending patents;
7 manage research logs; and,
8 research existing patents.

1 4. A proprietary information utility as in claim 1 wherein the
2 application services include at least one of the services listed below:

3 decision support software;
4 software for troubleshooting products;
5 system configuration services;
6 diagnostic services;
7 planning services;
8 selection services;
9 authoring tools that help authors generate appropriate software
10 models;
11 learning services for data-mining and the ongoing evolution of
12 models;
13 business intelligence services;
14 version management services;
15 presentation services;
16 brokering services;

17 stock selection services;
 18 investment portfolio troubleshooting services;
 19 investment portfolio selection services;
 20 services to troubleshoot devices;
 21 medical diagnosis services;
 22 services that predict failure and behavior;
 23 purchasing decision services;
 24 consulting services;
 25 skills gap analysis services;
 26 translation services for translating decision support models from one
 27 underlying technology to another;
 28 enterprise resource planning services; and,
 29 customer relationship management services.

1 5. A proprietary information utility as in claim 1 wherein the first
 2 category of proprietary information contains health records and the
 3 application services include services to provide services for supporting
 4 healthcare and patients, without revealing private information.

1 6. A proprietary information utility as in claim 1 wherein the second
 2 category of proprietary information includes proprietary information within
 3 at least one of the areas listed below:
 4 decision support models; and,
 5 models associated with troubleshooting products;

1 7. A proprietary information utility as in claim 1 wherein the second
2 category of proprietary information includes decision support models that
3 are based on at least one of the technologies listed below:

4 Bayesian networks;
5 neural networks;
6 case-based systems;
7 model-based systems;
8 rule-based systems;
9 fuzzy systems;
10 decision trees;
11 genetic algorithms;
12 Monte Carlo Markov chains;
13 clustering algorithms;
14 Monte Carlo optimization;
15 simulated annealing;
16 pattern matching;
17 influence diagrams;
18 online analytical processing;
19 collaborative filtering;
20 linear programming;
21 machine learning; and,
22 time series.

1 8. A proprietary information utility as in claim 1 wherein the
2 interfaces allows users to connect to the proprietary information utility
3 using at least one of the following deployment channels:

4 wireless network;
5 cellular phones;
6 internet sites;
7 applications embedded in appliances;
8 applications embedded in devices;
9 applications embedded in vehicle communication and information
10 systems;
11 applications embedded in intelligent agents; and,
12 applications embedded in memory modules.

1 9. A proprietary information utility as in claim 1 wherein the
2 application services include services to support the creation, maintenance,
3 and deployment of decision support models, in at least one of the following
4 areas:

5 data-mining;
6 usage reports;
7 business intelligence reports;
8 adaptive learning and refining of models;
9 authoring wizards particular to specific horizontal and vertical
10 industries; and,
11 quality benchmarks of models.

1 10. A proprietary information utility as in claim 1 additionally
2 comprising:

3 an application service registry that manages dynamic registration,
4 access, use, and disposal of the application services.

1 11. A proprietary information utility as in claim 1 additionally
2 comprising:

3 a proprietary information broker that maps semi-structured
4 proprietary information requests to a most appropriate proprietary
5 information model and application services that will operate on the most
6 appropriate proprietary information model.

1 12. A proprietary information utility as in claim 1 wherein the
2 security system provides non-repudiation services in support of billing and
3 reporting

1 13. A proprietary information utility as in claim 1 wherein the
2 security system provides privacy for all information transmitted outside of
3 the proprietary information utility, allowing proprietary services to make
4 use of proprietary information utility without revealing anything about
5 users of the proprietary services and without revealing contents of data
6 moving between services.

1 14. A proprietary information utility as in claim 1 wherein the billing
2 system provides revenue to be generated using at least one of the following

3 pricing schemes:
4 pay-per-use micro-transactions;
5 vendor-visible service-based pricing;
6 hybrid flows;
7 subscription-based pricing; and,
8 price bundling.

1 15. A proprietary information utility as in claim 1 additionally
2 comprising:
3 a scaleable computing engine that runs services across many pieces
4 of information.

1 16. A proprietary information utility as in claim 1 additionally
2 comprising:
3 a computing engine, the computing engine being used to translate
4 information from an author into a utility-native proprietary information
5 format that can be used by a least a subset of application services within the
6 proprietary information utility.

1 17. A proprietary information utility as in claim 1 wherein the billing
2 system calculates royalty payments due to authors when proprietary
3 information of the authors is used by the application services within the
4 proprietary information utility.

1 18. A proprietary information utility as in claim 1 additionally
2 comprising an application service registry that manages dynamic
3 registration, access, use, and disposal of the application services, the
4 application service registry providing a service catalog, a discovery
5 mechanism, and a brokering interface that links with the proprietary
6 information broker and the security system to provide a custom view of
7 available application services; based on entitlement and visibility.

1 19. A method comprising the following steps:
2 (a) providing outside entities connection to a proprietary information
3 utility;
4 (b) storing proprietary information within a repository, wherein the
5 repository is compartmentalized by user identity and entitlement;
6 (c) limiting access of each user connecting to the proprietary
7 information utility to proprietary information to which each user is entitled,
8 the proprietary information to which each user is entitled being accessed
9 through use of application services operating within the proprietary
10 information utility, wherein multiple users can be granted access to the
11 same proprietary information; and,
12 (d) tracking usage of users of the proprietary information utility for
13 billing purposes.

1 20. A method as in claim 19 additionally comprising the following
2 step:

3 (e) managing dynamic registration, access, use, and disposal of the
4 application services.

1 21. A method as in claim 19 additionally comprising the following
2 step:

3 (e) mapping semi-structured proprietary information requests to a
4 most appropriate proprietary information model and application services
5 that will operate on the most appropriate proprietary information model.

1 22. A method as in claim 19 wherein step (c) includes providing non-
2 repudiation services in support of billing and reporting

1 23. A method as in claim 19 wherein step (c) includes providing
2 privacy for all information transmitted outside of the proprietary
3 information utility, allowing proprietary services to make use of proprietary
4 information utility without revealing anything about users of the proprietary
5 services and without revealing contents of data moving between services.

1 24. A method as in claim 19 wherein step (d) includes providing
2 revenue to be generated using at least one of the following pricing schemes:
3 pay-per-use micro-transactions;
4 vendor-visible service-based pricing;
5 hybrid flows;
6 subscription-based pricing; and,
7 price bundling.

1 25. A method as in claim 19 additionally comprising the following
2 step:

3 (e) translating information from an author into a utility-native
4 proprietary information format that can be used by a least a subset of
5 application services within the proprietary information utility.

1 26. A method as in claim 26 wherein step (d) includes calculating
2 royalty payments due to authors when proprietary information of the
3 authors is used by the application services within the proprietary
4 information utility.

1 27. A method as in claim 19 additionally comprising the following
2 step: (e) providing a service catalog, a discovery mechanism to provide a
3 custom view of available application services, based on entitlement and
4 visibility.

1 28. A method comprising the following steps:

2 (a) providing outside entities connection to information within a
3 proprietary information utility;

4 (b) storing proprietary information within a repository, wherein the
5 repository is compartmentalized by user identity and entitlement;

6 (c) limiting access of each user connecting to the proprietary
7 information utility to proprietary information to which each user is entitled,
8 the proprietary information to which each user is entitled being accessed

9 through use of application services operating within the proprietary
10 information utility;

11 (d) mapping semi-structured proprietary information requests to a
12 most appropriate proprietary information model and application services
13 that will operate on the most appropriate proprietary information model ;
14 and,

15 (e) translating information from an author into a utility-native
16 proprietary information format that can be used by a least a subset of
17 application services within the proprietary information utility.

1 29. A method comprising the following steps:

2 (a) providing outside entities connection to information within a
3 proprietary information utility;

4 (b) storing proprietary information within a repository, wherein the
5 repository is compartmentalized by user identity and entitlement;

6 (c) limiting access of each user connecting to the proprietary
7 information utility to proprietary information to which each user is entitled,
8 the proprietary information to which each user is entitled being accessed
9 through use of application services operating within the proprietary
10 information utility; and,

11 (d) providing a service catalog, a discovery mechanism to provide a
12 custom view of available application services, based on entitlement and
13 visibility.